

Evaluation of surveillance systems in animal health: the need to adapt the tools to the contexts of developing countries



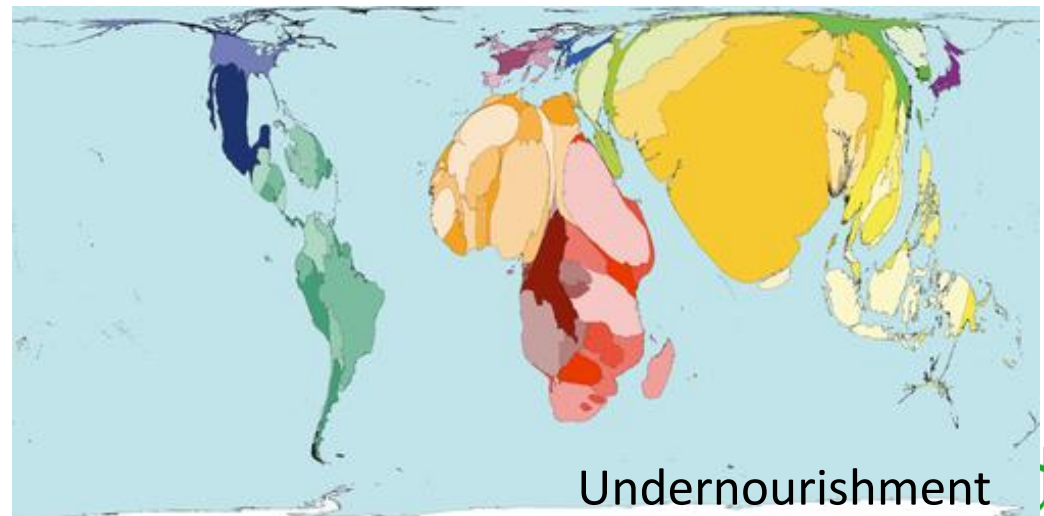
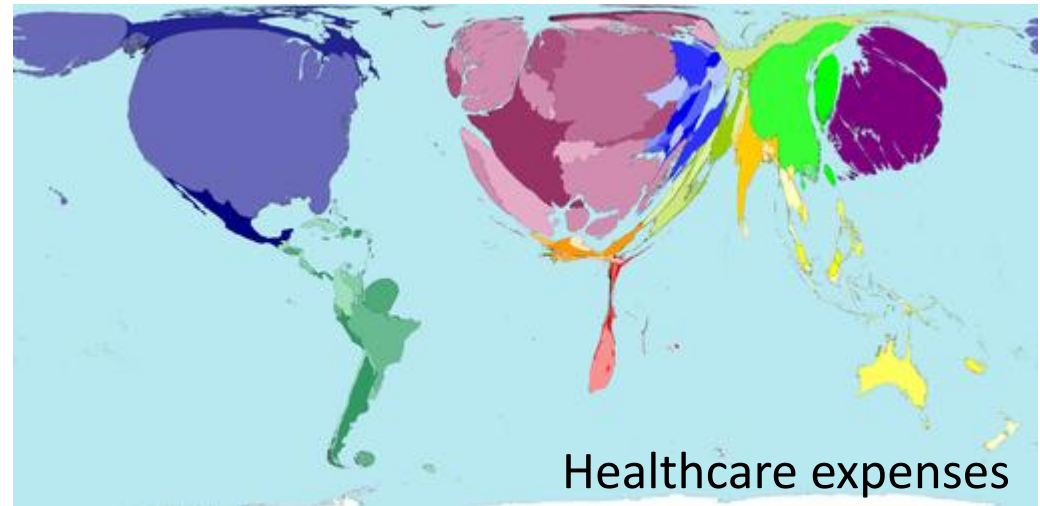
Marisa Peyre, Pascal Hendriks, Hoa Pahm Thi Thanh, Dung Do Huu,
Flavie Goutard, Stéphanie Desvaux, François Roger

International Conference on Animal Health Surveillance
Lyon, May 2011



Context for evaluation of surveillance

- Transboundary animal diseases / emerging diseases
- Dichotomy North/South:
 - Resources
 - Priorities





Context for evaluation of surveillance

How to ensure global use of SSIs ?

- Adaptation to the socio-economic and epidemiological contexts
- Application to OASIS / SNAT Tool
 - Evaluation of the adaptability to HPAI and SEA
 - Field development: Lao and Cambodia



SNAT- Surveillance Network Analysis Tool



- Standardized tool
- For evaluation:
In depth analysis of operational efficacy and quality of epidemiological surveillance networks

Epidemiol. Infect., Page 1 of 11. © Cambridge University Press 2011
doi:10.1017/S0950268811000161

OASIS: an assessment tool of epidemiological surveillance systems in animal health and food safety

P. HENDRIKX^{1*}, E. GAY², M. CHAZEL², F. MOUTOU³, C. DANAN⁴,
C. RICHOMME⁵, F. BOUE⁵, R. SOUILLARD⁶, F. GAUCHARD⁷ AND B. DUFOUR⁸



STRUCTURED QUESTIONNAIRE

Section 2 CENTRAL INSTITUTIONAL ORGANISATION

☐ To tick: the case just click on it. If it does not work you might need to activate the macros in Word.

Commentary/response	
2.1 CREATION OF THE NETWORK	
Date of creation of the network	
Did the network function in a non-formal manner prior to being established	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>If yes, since when :</i>
2.2 INSTITUTION RESPONSIBLE FOR SURVEILLANCE	
2.2.1 General Information	
Name (establishment)	
Relevant Ministry	
Address	
Telephone	
Fax	
E-mail	
2.2.2 Human resources (precise if the information covers the entire system, including data collectors or if it covers only a part which will need to be defined)	
Number of Engineer / Researchers / Manager	
Part of Veterinarians (DVM)	
Number of technicians (technician with 2 or 3 years of training)	
Number of other staff (Secretary, driver, etc.)	
2.3 CENTRAL UNIT	
Existing	<input type="checkbox"/> Yes <input type="checkbox"/> No
Operational	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>If yes, what form :</i>
2.3.1 Composition	
Formalized composition	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>If yes, what form :</i>
Composition (Number of staff and duties)	
Human resources in the central unit (in full time equivalent)	
Coordinator	
Name	
Organization	
Time allocated (% compared to full time)	
Coordinator task definition	
Animation manager	
Name	

Organization	
Time allocated (% compared to full time)	
Animation manager task definition	
2.3.2 Roles and responsibilities	
Defined (people know what to do but it is not written down)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Formalized (people know what to do and it is written down)	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>If yes, in what kind of document :</i>
Describe :	
Central Unit activities	
Material means specific for the Central Unit	<input type="checkbox"/> Yes <input type="checkbox"/> No
Financial means	<input type="checkbox"/> Yes <input type="checkbox"/> No
<i>If yes :</i>	
Specific to the Central Unit (Animation unit)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Integrated into the general budget	<input type="checkbox"/> Yes <input type="checkbox"/> No
Adequacy of material and financial means	<input type="checkbox"/> Yes <input type="checkbox"/> No
2.4 STEERING COMMITTEE OR EQUIVALENT (BODY GIVING STRATEGIC ORIENTATION TO THE SYSTEM)	
Existing	<input type="checkbox"/> Yes <input type="checkbox"/> No
Operational	<input type="checkbox"/> Yes <input type="checkbox"/> No
When there is no steering committee, who or what structure decides the principal orientation of the system?	
2.4.1 Composition	
Formalized composition	<input type="checkbox"/> Yes <input type="checkbox"/> No
List	
Veterinarian services	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>Specify :</i>
Livestock farmers	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>Specify :</i>
Other professionals (for example merchants, associations, etc.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>Specify :</i>
Govt ministries (departments)	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>Specify :</i>
Livestock projects	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>Specify :</i>



USER FRIENDLY SCORING

	A	B	C	D
1	SNAT - Scoring grid			
2				
3	Network XXX			
6	Sections and questions	Score (0 to 3)	Comments	
7	Section 1: Objectives and context of surveillance	<i>Point on the cell to access the scoring guide</i>		
8	1.1. Relevance of surveillance objectives	3		
9	1.2. Level of detail, accuracy, and formalization of objectives	0		
10	1.3. Taking partners' expectations into account	1	<p>To score, choose from the following options:</p> <p>Score of 3: All partners are listed with their corresponding expectations identified, and taken into account in the surveillance objectives.</p> <p>Score of 2: The expectations of a majority of partners are identified.</p> <p>Score of 1: The expectations of a minority of partners are identified and/or taken into account.</p> <p>Score of 0: Absence of identification and/or recognition of partners' expectations of t</p>	
11	1.4. Coherence of the diseases under surveillance with the sanitary situation (existing/exotic diseases or threats)	3		
12	Total	7		
13	over	12		



COMPUTERIZED OUTPUTS

Section 1 : Objectifs et champ de la surveillance

Section 2 : Organisation institutionnelle centrale

Section 3 : Organisation institutionnelle de terrain

Section 4 : Laboratoire

Section 5 : Outils de surveillance

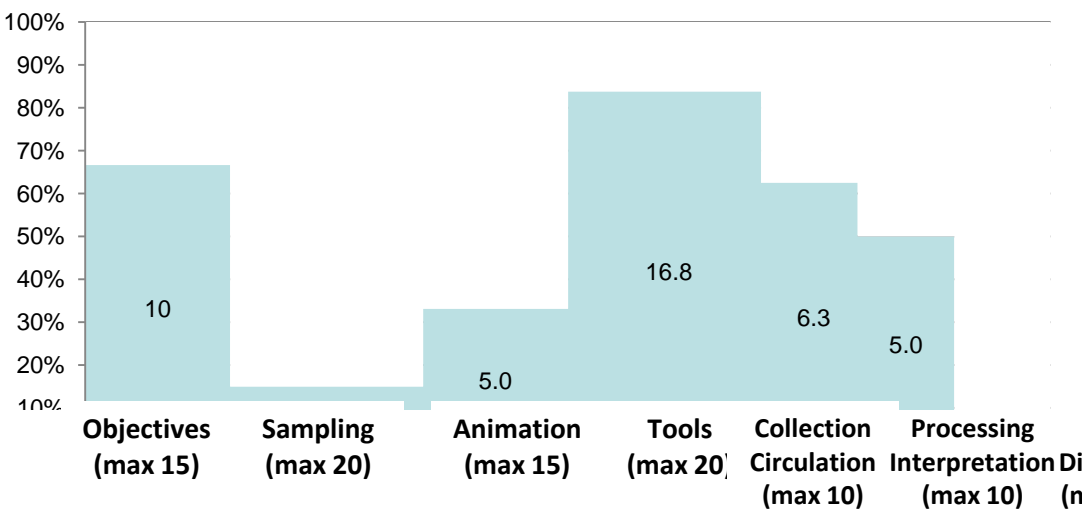
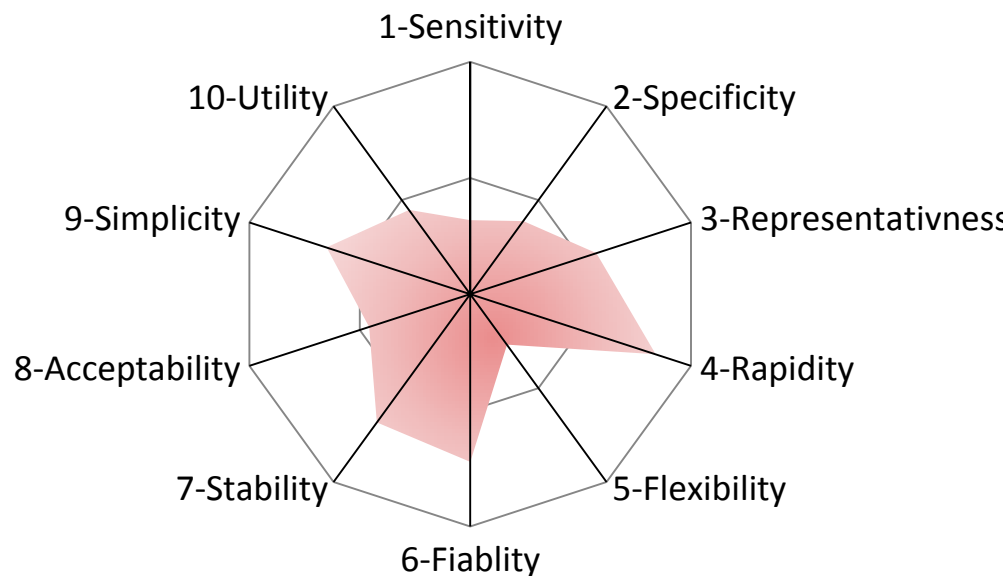
Section 6 : Modalités de surveillance

Section 7 : Gestion des données

Section 8 : Formation

Section 9 : Communication

Section 10 : Evaluation





SURVEILLANCE NETWORK ANALYSIS TOOL (SNAT)

REGIONAL WORKSHOP

*4th - 5th October 2010,
Sofitel Plaza Hotel, Ha Noi, Viet Nam.*

- 31 PARTICIPANTS
- Vet Services and Univ. Vietnam, Lao PDR, Cambodia, Thailand
- FAO, WHO, WB, CDC





Methodology

- 3 Groups of discussion
 - Surveillance system scenario
 - Review of Questionnaire and Scoring guide
 - 1) adequacy of the tool to the context of AI disease in SEA countries;
 - 2) simplicity and understanding of the tool;
 - 3) needs and recommendations for improvement.





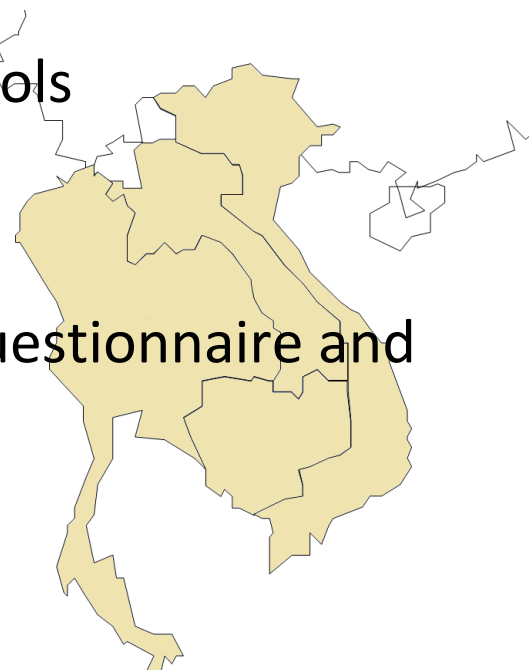
Workshop Outputs

General

- Awareness on the importance of evaluation of surveillance
- Issue of objectives and scale of use:
internal vs external evaluation
- Need for standardised approaches/tools

Limits of the tool

- Too complex: simplified version of questionnaire and scoring guide
- Importance of retroaction
- Cost benefit
- Subjectivity of the methods

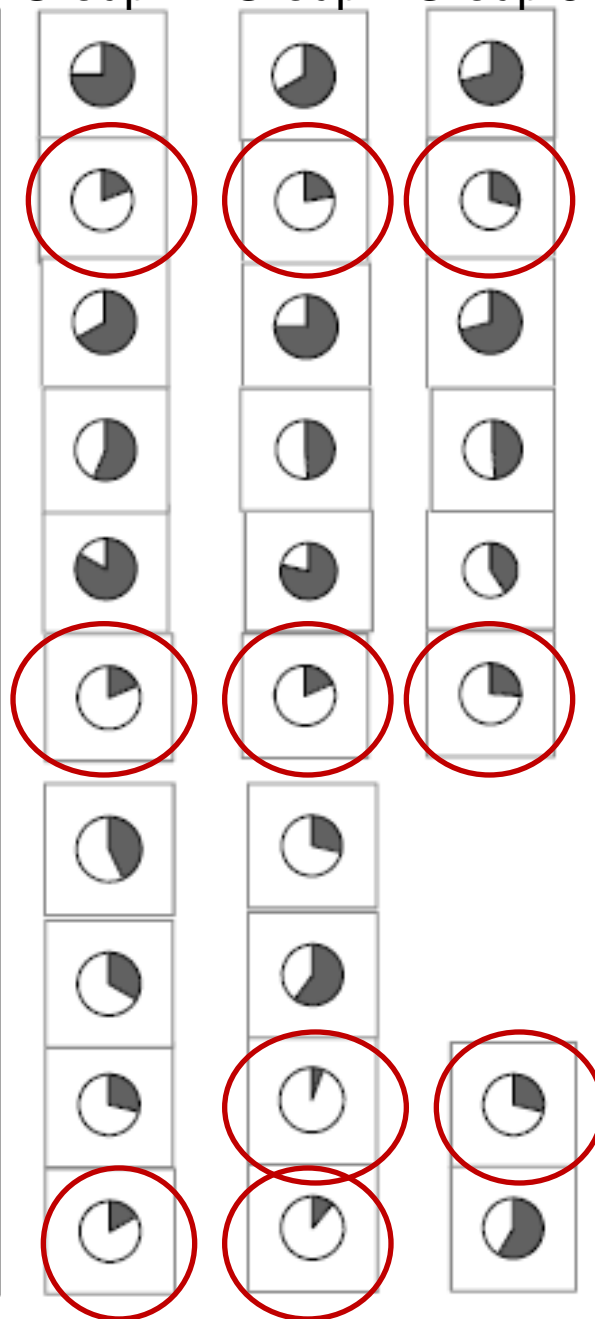


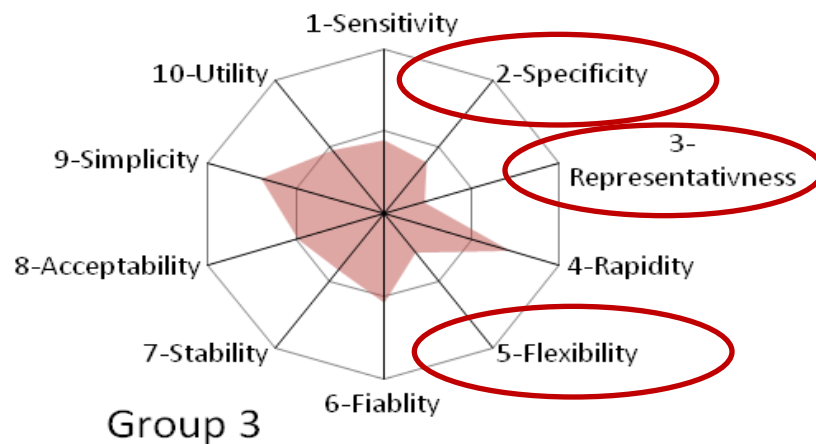
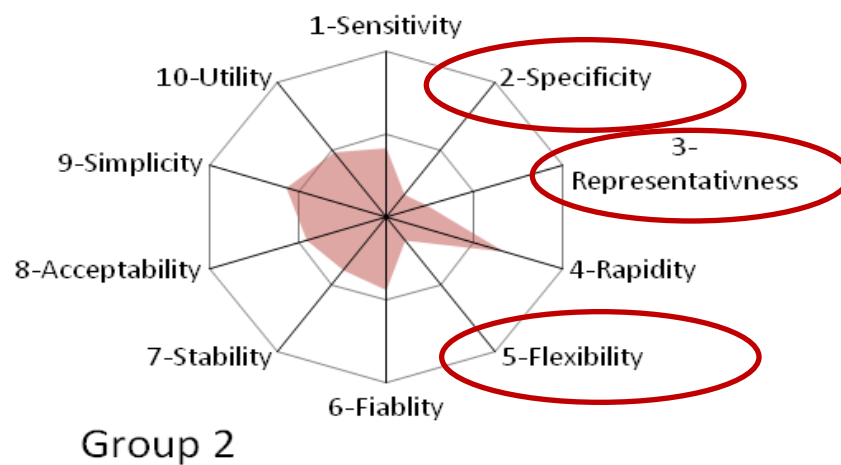
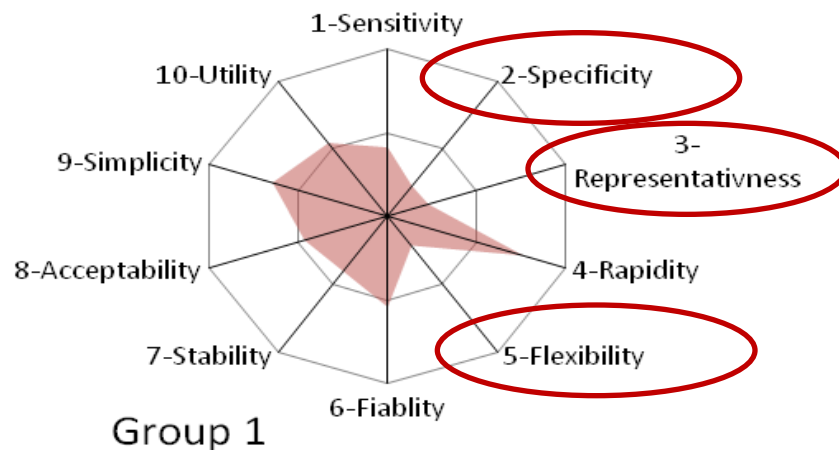
Section 1: OBJECTIVES AND CONTEXT OF SURVEILLANCE
Section 2: CENTRAL INSTITUTIONAL ORGANIZATION
Section 3: FIELD INSTITUTIONAL ORGANIZATION
Section 4 : LABORATORY
Section 5: SURVEILLANCE TOOLS
Section 6: SURVEILLANCE PROCEDURES
Section 7: DATA MANAGEMENT
Section 8 : FORMATION
Section 9 : COMMUNICATION
Section 10 : EVALUATION

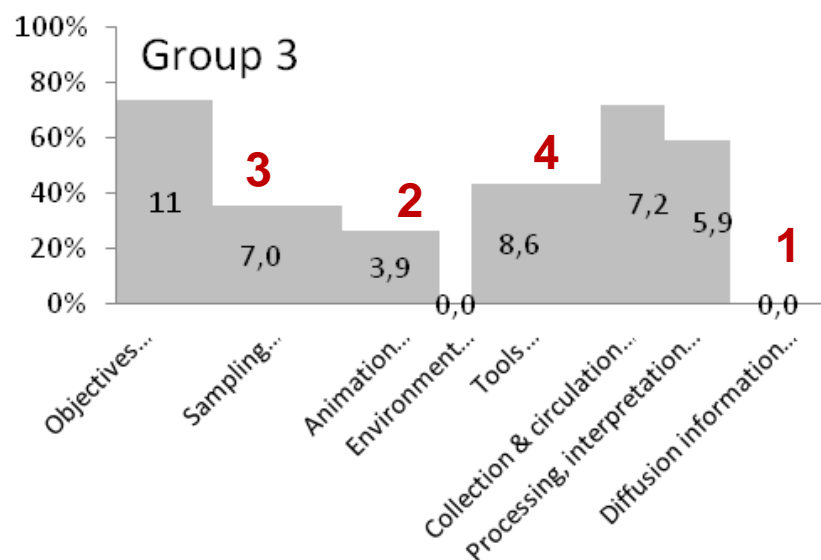
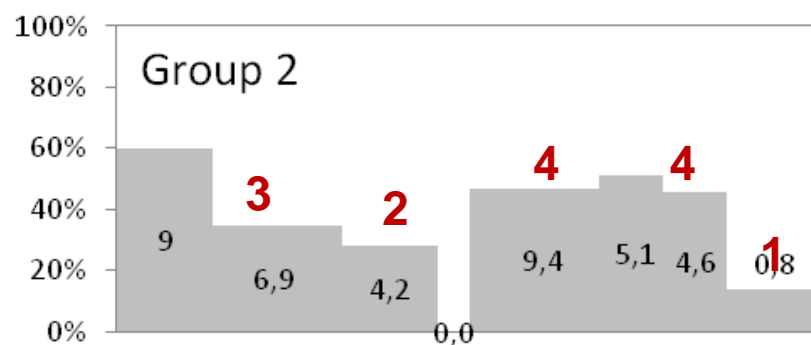
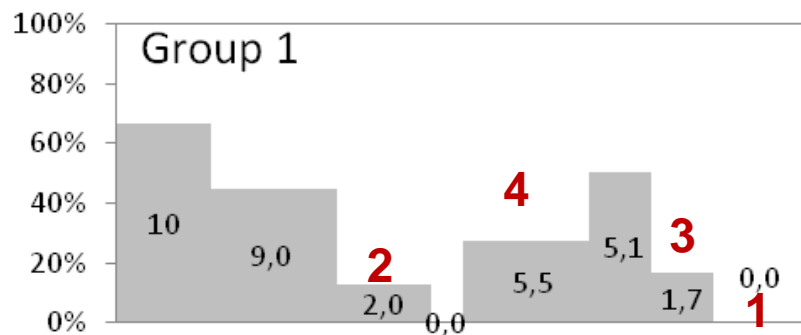
Group 1

Group 2

Group 3









Field application

- Development of a “generic” tool for developing countries: simplified questionnaire and scoring guide
 - Referencing/re-organisation
 - Closed questions
 - User guide
- Development of specific tool for Lao and Cambodia (questionnaire)



Picture: Céline Faverjon, Lao PDR, 2011



Picture: Timothée Vergne, Cambodia, 2011



Self-explained questionnaire

- Facilitate the understanding of questions and specific terms
- New definitions and examples

<p>Is there a charter (or other document), is it complete?</p> <p><i>a document is complete if it is unambiguous on the rights and duties of the partners. If there are some gaps or misunderstandings, it will be considered as incomplete.</i></p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><i>If it's possible, attach the document</i></p>
--	---



Simple scoring guide

Organization and operations of the system laid down in regulations, a charter, or a convention established between the partners

To score, choose from the following options:

Score of 3: The position of **all of the partners** in the surveillance is **set down in a document** (regulations, charter, or convention), leaving no room for ambiguity regarding their relationships.

Score of 2: The position of the **majority of the partners** (but not all) is **set down in a document**.

Score of 1: The position of **a limited number of partners** is **set down in a document**.

Score of 0: No regulatory or contractual document establishes the links between the surveillance partners.

The text (charter, regulations, other) concerns	The text is filled in	Score
All partners	yes	3
	no	2
More than half of partners	yes	
	no	1
Less than half of partners	yes	
	No	0
No text or no partners concerned		

ad



Easier scoring

Adequacy of material and financial resources of intermediary units

To score, choose from the following options:

Score of 3: Data collectors have all of the financial resources needed to carry out their surveillance activities.

Score of 2: Data collectors' conduct of surveillance activities is only **slightly constrained** by financial resources.

Score of 1: Financial resources **are a regular/constant concern** for data collectors in carrying out surveillance activities.

Score of 0: The issue of financial resources is **a major constraint** on data collectors and severely hinders their ability to conduct their surveillance activities.



- **Minor deficiencies** : generates a constraint on the structure but does not interfere with the conduct of surveillance activities
- **Medium deficiencies** : creates a constraint that interferes with the conduct of surveillance activities
- **Major deficiencies** : creates a constraint that severely limits the conduct of surveillance activities Ajout définition

Deficiencies	Score
No deficiency	3
At least one minor deficiency	2
At least one medium deficiency	1
3 medium deficiencies OR At least one major deficiency	0



Conclusion/Perspectives

- Evaluation is a critical part of surveillance process
- Countries need to define their own objectives
- Need to limit subjectivity
 - Standardized tools such as SNAT
 - Training / competencies
 - Need for further development/adaptation:
 - Clarify means of implementation in the field
 - Action based
 - Economic evaluation
 - Bridges with Public Health surveillance



Acknowledgements

- Pascal Hendrikx, ANSES
- Barbara Dufour, ENVA
- Céline Faverjon, CIRAD-NAHC
- Laetitia Minodier, CIRAD-NaVRI
- Flavie Goutard, CIRAD/IPC
- François Roger, CIRAD
- Stéphanie Desvaux, CIRAD
- Bruno Bonté, CIRAD
- Do Huu Dung, DAH, Vietnam
- Juan CarriqueMas, FAO, Vietnam
- Aurélie Brioudes, FAO, Vietnam
- Wanida Chaengprachak, DLD, Thailand
- Waraphon Pimprapai, KU, Thailand
- Bounlom Douangngeun, NAHC, Lao
- Tri Naipospos, FAO, Lao
- Davun Holl, NaVRI, Cambodia



Acknowledgements

- All the workshop participants....



**THANKS FOR
YOUR ATTENTION**